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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,744

01/23/2006

J. Brian Windsor

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7590

08/18/2009

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EXAMINER

SULLIVAN, DANIELLE D

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

08/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/531,744

**Applicant(s)**

WINDSOR ET AL.

**Examiner**

DANIELLE SULLIVAN

**Art Unit**

1616

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-24 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 6, 7, 9-24 and 27-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Claims 1-4, 6-24 and 27-32 are pending. Claims 31 and 32 were added in the amendment filed 5/19/2009. Claims 1, 2, 8, 31 and 32 are under examination.

### ***Withdrawn rejections***

Applicant's amendments and arguments filed 5/19/2009 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn.

### ***Election/Restrictions***

Applicant's election without traverse of a fungicide (tebuconazole) as the cytotoxic agent and the ecto-phosphatase inhibitor of Formula II was previously set forth.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. Claim 8 is an omnibus type claim. Furthermore, all dependent claims are rejected.

Ex parte Fressola 27 USPQ2d 1608 (Bd. Pat. App. & Int. 1993) states: 'Claims must, under modern claim practice, stand alone to define invention and incorporation

into claims by express reference to specification and/or drawings is not permitted...<sup>1</sup>.

Therefore, reference to Formulae I-XX in claim 8 fails to particularly point out the distinctly claimed invention because the formula is not limited to a particular structure.

Therefore, the claims are given their broadest reasonable interpretation and include any ecto-phosphatase inhibitor in combination with a fungicide.

Applicant's arguments with respect to the rejection(s) of claim(s) 1, 2 and 8 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is herein set forth.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 2, 8 and 32 rejected under 35 U.S.C. 102(e) as being anticipated by Windsor et al. (WO 02/20726).

Windsor et al. disclose ecto-phosphatase inhibitors of formula I-XX (pages 13-19). Suramin (Formula XIX) is formulated into a composition comprising a pesticide, defined as a fungicide (cytotoxic agent) (page 8, lines 3-21; page 9, line 5-10).

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akallal et al. (Inheritance and Mechanisms of Resistance to Tebuconazole, a Sterol C14-Demethylation Inhibitor, in *Nectria haematococca*, 1998) in view of Thomas et al. (WO 00/52144).

**Applicant's Invention**

Applicant claims a composition comprising a fungicide and an ecto-phosphatase inhibitor. Claim 8 specifies the inhibitor is selected from compounds of formula I-XX. Claim 31 specifies the fungicide is tebuconazole. Claim 32 specifies the inhibitor is a compound of formula II.

**Determination of the scope and the content of the prior art**

**(MPEP 2141.01)**

Akallal et al. teach tebuconazole as a broad-spectrum fungicide which is a C14-demethylation inhibitor. Acquired resistance can occur following intensive tebuconazole use (page 147, paragraphs 1 and 3).

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Akallal et al. do not teach the ecto-phosphatase inhibitor of Formula II. It is for this reason that Thomas et al. is joined.

Thomas et al. teach the manipulation of resistance of cells to foreign compounds (abstract). The invention contemplates the conference of resistance in microorganisms to antifungal agents (fungicides) (page 27, lines 29-31). The invention relates to methods of inhibiting or ameliorating infection in animals and humans caused by fungal infections using ecto-phosphatase inhibitors (page 32, lines 9-12). Formulas I-XX are disclosed (pages 34-38). The molecules are taught to fall into different chemical classes, wherein sulfanimides, such as Formula II, are used as antibiotics (page 39, lines 1-12). The preferred ecto-phosphatase is Formula II (page 40, line 9-11). Inhibition of ecto-phosphatases is taught to be useful in determining the titer of microbial in soil through the determination of ATP (page 41, lines 5-11).

**Finding of prima facie obviousness**

**Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Akallal et al. and Thomas et al. to further include a composition comprising the fungicide, tebuconazole and an ecto-phosphatase of formula II. One would have been motivated to combine tebuconazole with formula II

because Thomas et al. teach utilizing ecto-phosphatase inhibitors as antifungal agents. Since Akallal et al. teach that tebuconazole is a fungicide one of ordinary skill in the art at the time of the invention would have been motivated to combine the tebuconazole with an ecto-phosphatase inhibitor. It would be prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven 205 USPQ 1069, (C.C.P.A. 1980). Thus, combining tebuconazole with Formula II, as claimed in the instant invention is forth prima facie obvious.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan  
Patent Examiner  
Art Unit 1616

*/Mina Haghighatian/*  
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